

**REMARKS**

Applicant respectfully requests reconsideration of the present application in view of the below remarks.

Pending claims 1-23 are rejected.

The Prior Art Rejections

The Examiner rejects claims 1, 2, 4-9, 11-14, 16-19 and 22-23 under 35 U.S.C. §102 over U.S. Patent No. 5,704,791 to Gillio.

Claim 1 requires a surgical training system comprising a first instrument tracking module coupled to the base for tracking a position of a first instrument during a training procedure performed by a user, and a workstation coupled to the first instrument tracking module for processing position information of the first instrument to objectively analyze performance of the user as compared to one or more experts.

As shown and described in Applicant's specification, the claimed instrument tracking module tracks the position of an actual surgical instrument, such as that shown in the exemplary embodiment of Figure 6. As noted on page 10, line 11 et seq. "[i]n an exemplary embodiment, actual laparoscopic instruments, which are modified to enable position tracking, are used." In one particular embodiment, a Hall effect sensor is used to track instrument position. In addition, workpieces, such as those shown in Figure 3A-C, provide simulated anatomy that can be used to provide actual haptic feedback (not computer generated) mimicking that of patient anatomy.

In addition, claim 1 requires a workstation for processing position information of the first instrument to objectively analyze performance of the user as compared to one or more experts. As described on page 11, line 4 et seq., of Applicant's specification, a "database is formed by tracking instrument position during a training procedures performed by experts." That is, experts perform a procedure on a workpiece while instrument position is tracked and stored for

comparison against the same procedure performed by a trainee to objectively evaluate the trainee's performance, as further described on pages 11-12, for example.

In contrast, Gillio discloses a *virtual* surgery system. Gillio teaches using a mouse device 106 with some type of switches 130, 132, 134 (FIG. 2) to select what type of virtual instrument is to be simulated. Gillio goes on to describe in column 9 virtual models utilizing known "edge collision and detection software." Gillio discloses in Figures 7, 8, and 9A-B, a "joystick...for an inexpensive implementation of surgical (simulation)." Nothing remotely approaching an actual surgical instrument is taught by Gillio, and any tracking taught by Gillio refers to tracking a virtual instrument, and not an actual instrument position tracking as claimed.

In addition, while Gillio uses the term "expert," it is clear from the detailed description in columns 15-18 that Gillio does not teach or suggest objectively analyzing performance of the user *as compared to* one or more *experts*, as claimed.

Applicant respectfully submits that the virtual surgical training system taught by Gillio clearly does not teach the claimed surgical training system tracking surgical instruments. Accordingly, Applicant submits that claim 1 is patentably distinguishable over Gillio. For at least the same reasons, Applicant submits that claims 2-23 are also distinguishable over Gillio.

Claims 3 and 15 are rejected under §103 over Gillio in view of U.S. Patent No. 6,544,041 to Damadian. Claim 10 is rejected under §103 over Gillio in view of U.S. Patent No. 5,620,326 to Younker. Claims 20 and 21 are rejected under §103 over Gillio alone. Applicant believes Gillio cannot be used to properly reject the claims and reserves the right to challenge the Examiner's assertions with regard to claims 20 and 21.

Applicant submits that Damadian and Younker fail to overcome any of the shortcomings of Gillio discussed above in detail. Damadian merely discloses a surgical simulator and Younker merely discloses an anatomical simulator.

In view of the above, Applicant submits that claims 1-23 are in condition for allowance. Accordingly, Applicant respectfully requests a notice of allowance for these claims.

The Examiner is respectfully invited to telephone the undersigning attorney if there are any questions regarding this Response or this application.

Applicant does not acquiesce to any assertion made by the Examiner not specifically addressed herein.

The Assistant Commissioner is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 500845, including but not limited to, any charges for extensions of time under 37 C.F.R. §1.136.

Respectfully submitted,

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